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Office Address: A7B Porter Hall, Civil & Environmental Engineering Department,
Carnegie Mellon University, 5000 Forbes Avenue, USA

EDUCATION

Bachelor of Science (B.Sc.Engg), 2008

Faculty of Civil Engineering

Chittagong University of Engineering & Technology (CUET), Bangladesh www.cuet.ac.bd

1st & 2nd Year

National University of Singapore (NUS), Singapore www.eng.nus.edu.sg/civil

3rd & 4th Year [ASEAN scholar having credit transfer opportunity]

Undergrad Thesis: Analyzing Seismography is to seismic risk reduction and raising pre-awareness to reduce losses.

Masters of Science (M.Sc), 2010

<http://www.ce.cmu.edu/>

Department of Civil & Environmental Engineering

Research Group: Environmental Engineering, Science and Management (EESM)

Carnegie Mellon University, PA, USA.

- ✓ Grad Thesis Topic: ***Implications and Implementation of Nanotechnology in terms of Environmental risk analysis and modeling detecting foreign harmful particiles for human health. [under (CEINT) Center for the Environmental Implementation of Nano Techonology]***
- ✓ ***Alternation of Energy Based system to reduce rapid Climate change and posible industrial decision making to reduce global warming. (Under CDMC (Climate Decision Making Centre).***

Higher Secondary Certificate (H.S.C)

Science Faculty

Kishalaya Girls College

Dhaka Board <http://site.educationboard.gov.bd/dhaka/activities.php>

Year: 2003

Secondary School Certificate (S.S.C)

Science Faculty

Kishalaya Girls High School

Dhaka Board <http://site.educationboard.gov.bd/dhaka/activities.php>

Year: 2001

Personal Skills

1. Computer literacy –

❖ Structured and Object Oriented Programming :

Comfortable in C, C++. Have basic knowledge on FORTRAN, PROLOG, MATLAB, Database Programming., ANSIS,

- ❖ Engineering Softwares: STAAD.Pro, Micro wind, STRAAD, ETABS, PCA Col, SMART Modeller, FASTRAX, AUTO CAD 2D & 3D, 3D Studio Max, GIS, SAFE, RAMASA Calc 4.0, Caltox modeling, Molecular Assembly Sequence Software (MASS), Simulation & Software Tools (MSM & ICCN), Cloud Apps Carbon, EHASoft, Hara Software, IBS America, Ecologic Systems,

❖ Microsoft Visual Studio:

Capable of coding in VC++6.0

❖ Database Systems:

Can do database design.

❖ Operating Systems:

Comfortable in both Windows Vista/XP/2003/2000/98 And UNIX

❖ Applications:

LATEX, Microsoft Office, Open office, Microsoft Visio and other common productivity packages for Windows

❖ Others:

- ✓ Carol Draw,
- ✓ Quark Express,
- ✓ Q-Basic Programming,
- ✓ Visual Basic Programming,
- ✓ Assembly 8086, commonly used software,
- ✓ Adobe Photoshop CS2,
- ✓ Adobe Illustrator CS2,
- ✓ Adobe In design CS2,
- ✓ Adobe Premier,
- ✓ IT Tools & Application,
- ✓ Internet Browsing

2. Language Proficiency:-

Taken the following English proficiency test under **ETS** (<http://www.ets.org/>)

* Graduate Record Examination (**GRE**): **1510/1600**

(Verbal **710**, Quantitative **800**) + Analytical **5/6**

* IELTS (International English Language Testing System): 8 [L: 8, S: 8, R: 7.5, W: 8]

TOEFL: 283/300 CBT (L: 28/30, S: 28/30, R: 29/30, TWE: 5/6)

3. Presentation-

Developed ability to produce reports and presentations to professional standard

4. Analysis and evaluation-

Proficient in assessing data and formulating solutions

5. Organizational-

Effective at time management and prioritizing tasks to achieve deadlines

6. Interpersonal communication-

Strong team working, leadership and communication skills

EXTRACURRICULAR ACTIVITIES

1. Basic Electricity & Electronics under Continuing Education Centre (CEC), Singapore Polytechnic, 2007 www.sp.edu.sg:

- I.) Project on Digital Stopwatch
- ii.) Circuit Maker and Simulation
- iii.) Operational Amplifiers and Transistor Switch Design
- iv.) Integrated Circuit Design

2. Computer Network & Protocol under Continuing Education Centre (CEC), Singapore Polytechnic, 2007 www.sp.edu.sg :

- a) 5 Router Configuration using Router Lab Topology
- b) Network Planning and Design
- c) Home Networking/ Network Security and Management
- d) TCP/IP Protocol Suite
- e) Cable Fabrication
- f) Frame Relay (Sub interface, DCE Switching)
- g) Integrated Service Digital Network (ISDN)

3. NITAT (National IT Aptitude Test) from NIIT (National Institute of Information Technology) with 88 percentile, January 2008 positioning at top 12% <http://www.niit.com.my/asiapaci.html>

AWARDS & ACHIEVEMENTS

Educational Awards:

- ASEAN undergraduate Scholarship from NUS, Singapore www.eng.nus.edu.sg/civil
- University Dean's Scholarship for undergraduate merit position, CUET, Bangladesh www.cuet.ac.bd
- University Dean's Scholarship for undergraduate merit position, NUS, Singapore www.eng.nus.edu.sg/civil
- Scholarship from Dhaka Education Board for S.S.C result, Bangladesh <http://site.educationboard.gov.bd/dhaka/activities.php>
- Scholarship from Dhaka Education Board for H.S.C result, Bangladesh <http://site.educationboard.gov.bd/dhaka/activities.php>
- Scholarship from Bangladesh Technical Education Board, <http://www.bteb.gov.bd/>
- Ministry of Education (MOE) www.moe.sg scholarship for Securing 1st class in Singapore from NUS in Civil Engineering.
- Undergraduate Research Award from NUS. <http://www.eng.nus.edu.sg/urop/>
- NIIT Scholarship for Merit Position. <http://www.niit.com.my/asiapaci.html>
- Carnegie Mellon University Departmental Fellowship <http://www.ce.cmu.edu/>
- Professional Development Honor recognition from American Society of Civil Engineers (ASCE) and Illinois Institute of Technology (IIT), Chicago, IL.
- ASCE OSHA Susan Harwood Training Grant organized in Illinois Institute of Technology by American Society of Civil Engineers (ASCE)
- Travel Grant for Conference on Environmental Effects of Nanoparticles and Nanomaterials: 2010 from Clemson University, USA.

Sports Awards:

Innumerable presents as an Athlete in school years.

- Local Chairman's Award
- School Principal's Award

Professional Awards:

1. Best Performer Award from BPDB <http://www.bpdb.org.bd>
2. Best Designer Reorganization from Sheltech Pvt Ltd. <http://www.sheltechbd.com/contactus.ph>

MEMBERSHIP

- Group member of World Literature Centre (WLC), Bangladesh
- Group volunteer of Cultural Activities, Bangladesh
- Member of Social Welfare of Bangladesh charity club
- Club Member of Student Union NUSSU in National University of Singapore, (NUS) <http://www.nus.edu.sg/nussu/>
- Member of ReseachSEA <http://www.researchsea.com/>

- Member of EWRI (Environment & Water Research Institute) <http://content.ewrinstitute.org/> 926718 identification number
- Member of EECp (Engineering Education & Career Program). Member ID number 0603285
<http://www.eecp-edu.org/article.php>
- Member of MetaPress, ID (236-39-065). <http://www.springerlink.com>
- Member of IEEE NUS Branch. <http://nusieee.org/web/>
- Member of ODP (Open Directory Project). <http://www.dmoz.org/>
- Member of UROP (Under Graduate Research Program) in NUS.
- Member of Live Journal. <http://www.eng.nus.edu.sg/urop/>
- Associate Member of Institute of Engineers" Bangladesh (IEB) since October 2009
<http://www.iebbd.org/> AM/10281
- Member of America Concrete Institute (ACI). Member number is 01159033
www.concrete.org
- Member of ASCE (American Society of Civil Engineers). <http://www.asce.org/> 926718 identification number.
- Member of Bangladesh Environment Network. <http://www.ben-center.org/>
- Institutional Member of SANDEE (South Asian Network Development & Environmental Economics). http://www.sandeeonline.com/currentinstmember_disp.php?page=7
- Student Member of Association of Environmental Engineering and Science Professors (AEESP), USA.
- Member of Association for Women in Science (AWIS). <http://www.awis.org/>. ID: 32472
- Member of American Meteorological Society (AMS), USA. Member id : 0406214
<http://www.ametsoc.org/>

Undergraduate Project Work:

- *Seismograph in Pre-alarming and Preventing disasters of Earthquake*
- *Recycling of Materials in Civil Engineering*
- *Environmental Impact Assessment of Development Schemes baseline*
- *Flood Mitigation & Management.*
- *Vibration Based Inspection of Civil Engineering Structures*
- *System Identification and Damage Detection in Civil*
- *Kinematics and Mechanisms Design*
- *Undergrad Thesis: Analyzing Seismography is to seismic risk reduction and raising pre-awareness to reduce losses*

Graduate Project Work:

1. *Manufactured Gas Plant Remediation Project for Wildcat Remediation, Inc. compiling site remedial condition, Pittsburgh, PA, USA.*

2. *Improving Pittsburgh International Airport's Pavement Management Program for Allegheny County Airport (Pittsburgh International Airport) advancing Infrastructure Management.*
3. *Environmental & Ecological Fate, Transport, Exposure, Risk assessment with uncertainty numbers, Exposure pathways analyses using RAMAS CALC. 4.0 Software to establish risk based decision in Environmental Management for any specific site.*
4. *Nine Mile Run Greenway Project--Pathogen detection and control in drinking water quality sanitizing bromide in the Monongahela River, Pittsburgh, Pennsylvania, USA.*
5. *Grad Thesis Topic: Implications and Implementation of Nanotechnology in terms of Environmental risk analysis and modeling detecting foreign harmful particiles for human health. [under (CEINT) Center for the Environmental Implementation of Nano Techonology]*
6. *Alternation of Energy Based system to reduce rapid Climate change and posible industrial decisión making to reduce global warming. (Under CDMC (Climate Decision Making Centre).*

TRAINING

1. Have done training on Building Construction under HBRI (Housing & Building Research Institute), http://hbri.gov.bd/contact_us.php Dhaka, Bangladesh.
2. Have done Industrial training on Civil Engineering in Nan yang Technology University (NTU) from National University of Singapore (NUS), Singapore. http://www.i2r.a-star.edu.sg/Industrial_Attachment.html
3. Have performed Survey works in Kuala Lumpur, Malaysia during periods of Undergraduate from National University of Singapore (NUS).
4. Have performed Two Months Course on Computer Aided Design in Institute of Engineers' Bangladesh (IEB) including Architecture Drawing. <http://www.iebbd.org/>
5. 4.0 Professional Development Hour (PDHs) for attending the course on "Crane Safety Training for Engineers and Supervisors", June 18, 2010 in Chicago, IL, USA ; joint contribution of American Society of Civil Engineers and Illinois Institute of Technology (IIT) funded by ASCE OSHA Susan Harwood Training grant.
6. NIH training on "Environmental health and Safety-Guidelines for Recombinant DNA Molecules" in Carnegie Mellon University, July 14, 2010, USA.

Research Training

(CITI) Collaborative Institutional Training Initiative, Carnegie Mellon University
Institutional Member ID: 1714784
May 27 – June 5, 2010

Social & Behavioral Research - Basic/Refresher:

Completed Modules:

Belmont Report and CITI Course Introduction
Students in Research - SBR
History and Ethical Principles - SBR
Defining Research with Human Subjects - SBR
The Regulations and The Social and Behavioral Sciences - SBR
Assessing Risk in Social and Behavioral Sciences - SBR
Informed Consent - SBR
Privacy and Confidentiality - SBR
Research with Prisoners - SBR
Research with Children - SBR
Research in Public Elementary and Secondary Schools - SBR
International Research - SBR
Internet Research - SBR
Carnegie Mellon University
Social and Behavioral Research for Biomedical Researchers
International Research
Human Subjects Research at the VA
HIPAA and Human Subjects Research
Workers as Research Subjects-A Vulnerable Population
Hot Topics
Conflicts of Interest in Research Involving Human Subjects

Responsible Conduct of Research Curriculum:***Completed Modules:***

Introduction to RCR for Engineers
Research Misconduct
Responsible Authorship in Engineering
Ethical Issues in Peer Review and Publication in Engineering Research
Conflicts of Interest in Engineering Research
The Ethics of Mentoring
Ethical Issues in the Management of Data in Engineering Research
Collaborative Research in Engineering Fields
Completing the RCR for Engineers Course
Completing the RCR for Engineers Course. 3
The CITI RCR Course Completion Page.
Carnegie Mellon University
Whistle Blowing and the Obligation to Protect the Public
Environmental Ethics
Human Subjects Research in Engineering Fields.
The Use of Live Animals in Research

SEMINAR PARTICIPATION/WORK

- ❖ “Steel and climate policy: trade barriers and emissions targets for the US steel industry” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on February 5, 2010
- ❖ “Corporate Environmental Management at IBM” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on January 29, 2010
- ❖ “Meeting the World’s Energy Needs in a CO₂-Constrained Environment: The Role of Nuclear Power”. Civil & Environmental Engineering Departmental Seminar, Carnegie Mellon University, on February 12 , 2010
- ❖ “Design Decisions for Electric Vehicles and Charging Infrastructure” - Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on February 19, 2010
- ❖ “Can compressed air energy storage profitably integrate Texas wind power?” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on March 5, 2010
- ❖ “Source Water Quality in the Monongahela River” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on March 19, 2010
- ❖ “Shaw Environmental Sustainability” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on March 26, 2010
- ❖ “Risk Communication for Carbon Capture and Sequestration” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on April 2 , 2010
- ❖ “Focus on Advanced Infrastructure System (AIS focus)” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on April 9 , 2010
- ❖ “Ecosystem Impacts of Nanomaterials” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on April 16, 2010
- ❖ “Constitutive Behavior and Reliability of Ferroelectric Materials” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on April 23, 2010
- ❖ “How the Earth was Made - Part I, Part II” - Research Group: Environmental Engineering Science & Management (EESM), Civil & Environmental Engineering Department, Carnegie Mellon University, on January 15, January 22, 2010

PUBLICATION

Journal Publication:

J1. Chen, X., and Nomana Intekhab Hadi Feb 9, 2008. A two-layer model to simulate variations in surface water chemistry draining a forest watershed. Water Resource. Following Previous (Res. (W09425) 41:8 pp), in NUS Publication, Wat.Res.41.11: 3067-3083, Singapore.

J2. Proposed DART (Deep-Ocean Assessment and Reporting of Tsunamis) system in the Bay of Bengal, in Daily Star, page 20, Vol 1 February 13, 2009 on TECHNEWS Section, Dhaka, Bangladesh.

<http://www.thedailystar.net/newDesign/news-details.php?nid=75643>

J3. Proposed Deep-ocean Assessment and Reporting of Tsunamis in the Bay of Bengal, in Bangladesh2day (Journal), Technology Section. Top spotlight view, on February 13, 2009, Dhaka, Bangladesh.

<http://bangladesh2day.com/newsfinance/2009/February/13/Technology.php>

Working Paper:

W1. Working Paper on "Sustainable Concrete Construction" by Md.Mizanur Rahman & Nomana Intekhab Hadi in South Asian Network for Development in Environmental Economics, SANDEE (<http://www.sandeeonline.com/index.php>) on 16th December 2009. Ref. Link:

<http://www.sandeeonline.com/publicationdisp.php?pageno=9&pcid=1>

Book/Book Chapters Publication:

Published:

B1. Online www.lulu.com reviewed book on "DEVELOPMENT OF COMPUTER AIDED DESIGN CHARTS OF REINFORCED CONCRETE COLUMNS". With Content ID: 8800398, ISBN #: 978-0-557-47294-9 and Volume 1, May 13, 2010- by Engr. Mizanur Rahman, Engr. Kazi Farhad, Engr. Nomana Intekhab Hadi; supervised by Dr. Munaz Noor.

Submitted:

B2. "Construction Safety Planning: Roles and Responsibilities." in National Concrete Pavement Technology Center, IA, USA; 2010

Conference Proceedings:

C1. "Climate Change and relevant Migration Development" conference proceeding, June 17, 2010, pp: 113-114, at United Nations Institute of Training and Research (UNITAR), New York, USA.

Submitted Conference Papers:

C2. *"Integration of formulated steps is to reach beyond the border of seismic threats on Bangladesh's infrastructure implying long run policy"* in Bangladesh Environment Network (BEN) BEN-NY-NJ-CT (the tri-state chapter of BEN for New York, New Jersey, and Connecticut) USA.

C3. *"Development & Entrepreneurship of Dhaka's (Capital of Bangladesh) road infrastructure & technology to last overwhelming Traffic Jam"* in Bangladesh Environment Network (BEN) BEN-NY-NJ-CT (the tri-state chapter of BEN for New York, New Jersey, and Connecticut) USA

C4. *"Modeling, Monitoring and Management of Air Pollution; to Protect Environment of Dhaka, as well as of Bangladesh"* in Bangladesh Environment Network (BEN) BEN-NY-NJ-CT (the tri-state chapter of BEN for New York, New Jersey, and Connecticut) USA

Technical Paper:

Submitted

T1. *"GHG Emission Abatement: Adaptive management of CCS regulation and decision making policy management"* in Intergovernmental Panel on Climate Change, USA

T2. *"Adaptation to Climate Change Impacts: Water implications of low carbon energy production."* in Intergovernmental Panel on Climate Change, Geneva 2, Switzerland

Accepted Technical Papers:

T3. *"Pavement Condition Prediction, Optimistic Cost approaches, and Integrated Enhanced Pavement Management System (GIS Modeling) of Pittsburgh International Airport prepared for Allegheny Country Airport Authority, Pittsburgh, Pennsylvania, USA."* in American Concrete Institute , MI, USA.

T4. *"Manufactured Gas Plant Remediation of Wildcat Remediation, Inc."* in GEO/Environmental Associates Inc , Tennessee, USA.

Online Research Article Publication:

- O1. "Earthquake Pre Awareness & Seismic Risk Reduction"
<http://www.4engr.com/research/review/430/index.html>
- O2. "Quality Protection of Ground Water."
<http://www.4engr.com/research/catalog/872/index.html>

WORK EXPERIENCE

RESEARCH EXPERIENCE:

1. As an Undergraduate Research Assistant, RA under UROP (Undergraduate Research Opportunity Program) from 2007 March to 2008 March in NUS., Singapore
<http://www.eng.nus.edu.sg/civil>
2. Has worked as a Research Assistant in Carnegie Mellon University under Civil & Environmental Engineering Department at EESM (Environmental Engineering, Science & Management Research group. Research Project Affiliation: Center for Environmental Implications of Nano-Technology (CEINT), Climate based Decision Making Center (CDMC) www.ce.cmu.edu from January 2010 to December 2010, USA.

INDUSTRY EXPERIENCE:

1. As a Project Engineer from January 2008 to April 2009 had been serving Bangladesh Power Development Board (BPDB) <http://www.bpdb.org.bd> & Sheltech Pvt Ltd. <http://www.sheltechbd.com/contactus.php>, Dhaka, Bangladesh
2. As a Structural had been serving Building For Future Ltd from April 2009 to December 2009. <http://www.buildingforfutureltd.com/>, Dhaka, Bangladesh

ACADEMIC EXPERIENCE:

1. Had been working for Military Institute of Science & Technology (MIST) as a Lecturer in Civil Engineering Department from January 2009 to December 2009, Dhaka, Bangladesh
<http://www.mist-bd.org/>

PERSONAL INFORMATION

Father's Name: Masood Hadi Raza
Mother's Name: Nazrana Akhter
Permanent Address: 25/6 Sher Shah Suri Road, Mohammadpur Dhaka 1207 Bangladesh
Current Residential Address: 222 South Millvale Avenue, Pittsburgh, PA 15224, USA.
Visa status: F1 (Student visa)
Nationality: Bangladesh.
Gender: Female.

REFERENCE

Brig. Gen. Habibur Rahman Kamal
Departmental Dean & Acting Commandant of the Civil Engineering Department.
Military Institute of Science & Technology. <http://www.mist-bd.org/>

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Address- Mirpur-12, Mirpur cantonment, Military Institute of science & Technology
(MIST), Faculty Tower-1, 6th Floor. Dhaka-1216, Bangladesh

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